

WE CLAIM:

1. A reciprocating shaft and bearing combination for a reciprocating saw comprising:

a bearing mounted to the saw;

a reciprocating shaft having a blade holder at a first end thereof for holding a saw

5 blade, the reciprocating shaft having a reciprocating motion relative to the bearing defining a reciprocating motion axis, the reciprocating shaft also having a bore formed in a second end opposite the first end, the bore being formed parallel to the reciprocating motion axis and a first end of the bearing being positioned inside the bore;

10 a first bearing surface formed on the bearing;

a second bearing surface formed on the bore; and

wherein the first bearing surface supports the second bearing surface for sliding movement therebetween.

2. The reciprocating shaft and bearing combination of claim 1 wherein each of the first

15 and second bearing surfaces is a cylindrical surface with a common cylindrical axis parallel to the reciprocating motion axis, the second bearing surface being radially spaced from the central axis further than the first bearing surface.

3. The reciprocating shaft and bearing combination of claim 2 wherein the reciprocating shaft rotates relative to the bearing about a rotational axis coaxial with the cylindrical axis.
4. The reciprocating shaft and bearing combination of claim 2 wherein the bearing is an
5 elongated shaft having first and second distal ends, the second end being mounted to the saw, the first end having the first bearing surface and being located within the bore.
5. The reciprocating shaft and bearing combination of claim 4 wherein the first distal end of the bearing has screw threads which engage complementary screw threads
10 formed in the saw.
6. The reciprocating shaft and bearing combination of claim 1 further comprising a front bearing mounted to the saw, the front bearing supporting the reciprocating shaft for sliding movement therebetween at a position between the first and second ends of the reciprocating shaft.
- 15 7. The reciprocating shaft and bearing combination of claim 1 wherein the saw further comprises

a rotary motor for powering the saw by driving the reciprocating motion of the reciprocating shaft; and

the reciprocating shaft is rotatable relative to the rotary motor about an axis
generally perpendicular to the reciprocating motion axis.